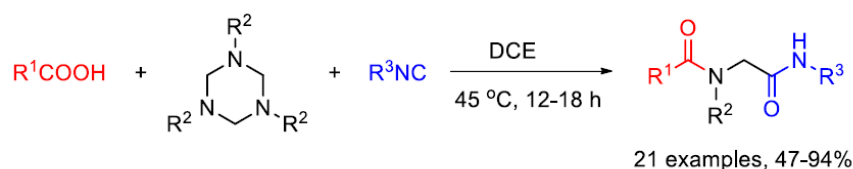


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1,3,5-TRIAZINANES AS FORMALDIMINE SURROGATES
IN THE UGI REACTIONP. Golubev

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Abstract. In the present study, a new synthetic strategy towards *N*-acylated glycnamides was developed by the use of 1,3,5-triazinanes as formaldimine surrogates in the Ugi reaction. The targeted products were obtained in a combinatorial, diversity-oriented fashion in good yields. Further modifications allowed us to adapt this procedure for the one-pot two-step syntheses of a local anesthetic drug lidocaine and several unsymmetrically substituted diketopiperazines.



Scheme 1. Synthesis of glycnamide derivatives

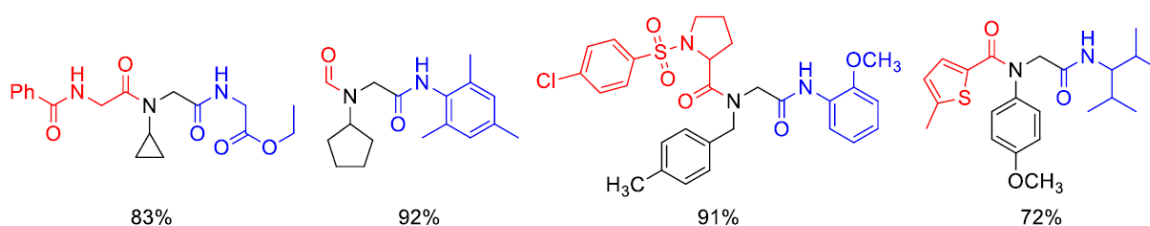
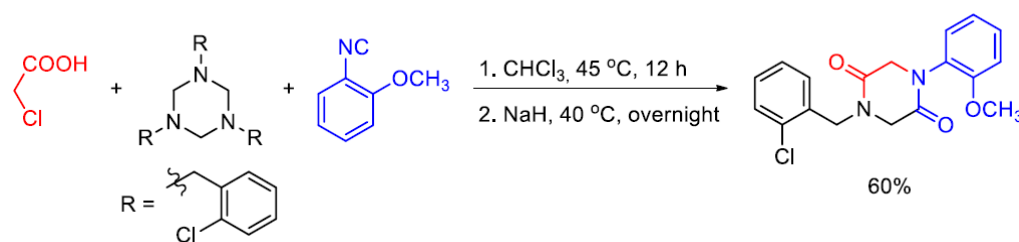
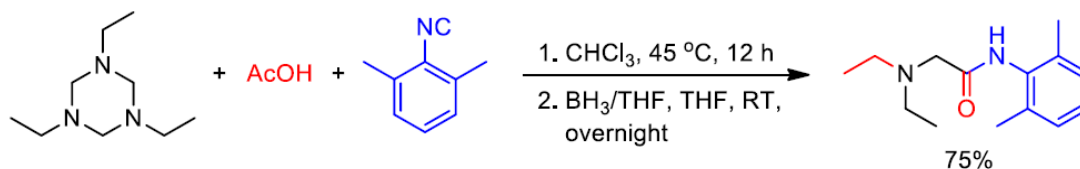


Figure 1. Selected examples of the synthesized compounds.



Scheme 2. Synthesis of diketopiperazines.



Scheme 3. Synthesis of lidocaine

References

1. Golubev P. 1,3,5-Triazinanes as Formaldimine Surrogates in the Ugi Reaction / P. Golubev, N. Guranova, M. Krasavin // European Journal of Organic Chemistry. – 2020. – Vol. 2020, Iss. 29. – P. 4517–4520.